

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FLG-001-WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP99/04095	International filing date (day/month/year) 14 June 1999 (14.06.99)	Priority date (day/month/year) 13 June 1998 (13.06.98)
International Patent Classification (IPC) or national classification and IPC C12N 15/29, 1/19, 5/10, A01H 5/00		
Applicant FLÜGGE, Ulf-Ingo		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.	
<input type="checkbox"/>	This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of _____ sheets.	
3. This report contains indications relating to the following items:	
I <input checked="" type="checkbox"/>	Basis of the report
II <input type="checkbox"/>	Priority
III <input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV <input type="checkbox"/>	Lack of unity of invention
V <input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI <input type="checkbox"/>	Certain documents cited
VII <input type="checkbox"/>	Certain defects in the international application
VIII <input checked="" type="checkbox"/>	Certain observations on the international application

Date of submission of the demand 11 January 2000 (11.01.00)	Date of completion of this report 30 August 2000 (30.08.2000)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

☒ the international application as originally filed.

☒ the description, pages 1-26, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, Nos. 1-10, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. _____, filed with the letter of _____,
Nos. _____, filed with the letter of _____.

☐ the drawings, sheets/fig _____, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	3-5, 8-10	YES
	Claims	1, 2, 6, 7	NO
Inventive step (IS)	Claims	3-5	YES
	Claims	1, 2, 6-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. The present application discloses a plastidic glucose translocator protein and the nucleotide sequence coding therefor.

2. None of the documents cited in the international search report discloses a plastidic glucose translocator which would have a sequence corresponding to SEQ ID No: 1, 3 or 5.

Nevertheless, an objection must be raised to Claims 1, 2, 6 and 7 owing to their unclear wording (**PCT Article 33(2)** (lack of novelty)).

Claim 1 comprises DNA sequences which code for a plastidic glucose translocator and have the sequence indicated in the sequence protocol as well as "other" DNA sequences which hybridize with the aforementioned sequences or parts thereof. The applicant is reminded that no function is given for these "other" sequences.

The sequences (AF00952, L01424, Y10558) cited in the search report are identical in parts of at least 17 nucleotides to the sequences indicated in the

sequence lists and therefore hybridize with parts of the DNA sequence which codes for the plastidic glucose translocator. These sequences are therefore covered by the definition of Claim 1.

The argument applies to Claims 2, 6 and 7.

3. The subject matter of Claims 8, 9 and 10 is not regarded as involving an inventive step (**PCT Article 33(3)**). An inventive step is not needed to insert a known DNA sequence into a plant cell or a plant. Furthermore, the protein coded by the sequence AF000952 is a probable sugar transporter and its use according to Claim 10c) and d) therefore appears to be obvious.

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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 10, in particular how the dependent claims are linked, is unclear.